



NOTES POXVIRIDAE

MICROBE OVERVIEW

Genetic material

- Linear double-stranded DNA

Taxonomy

- *Poxviridae*: family of double-stranded DNA viruses

Morphology

- Brick-shaped/ovoid
- Enveloped (outer lipid membrane)
- Size: 220–450nm

Replication

- In host cell cytoplasm

Associated clinical syndromes

- *Febrile rash illnesses*: smallpox (eradicated), monkeypox
- *Skin lesions*: vesicles, pustules, papules, skin thickening

MOLLUSCUM CONTAGIOSUM

osms.it/molluscum-contagiosum

PATHOLOGY & CAUSES

- *Molluscum contagiosum virus (MCV)*: **poxvirus**; causes papular skin disease
- Four subtypes; genotype 1 causes most U.S. cases
- **Common in children, adolescents**
- Skin penetration → stratum spinosum replication within keratinocytes → epidermal hypertrophy → papules
- **Incubation period**: 2–6 weeks

CAUSES

- Physical contact, autoinoculation, fomites

RISK FACTORS

- Contact sports; **sexual intercourse** with infected individuals; immunosuppression; atopic dermatitis

COMPLICATIONS

- Widespread/refractory lesions in immunosuppressed individuals



Figure 91.1 The wart-like lesions caused by molluscum contagiosum infection.

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SIGNS & SYMPTOMS

- Dome-shaped, shiny, umbilicated papules (2–5 mm); sometimes polypoid
- **Lesion distribution:** trunk, genitals, intertriginous areas (e.g. axilla, antecubital folds); not on palms, soles
- Sometimes pruritus, inflammation, swelling
- **Molluscum dermatitis:** eczematous patches/plaques around papules
- Eyelid lesions → keratoconjunctivitis

DIAGNOSIS

LAB RESULTS

- **Histologic examination:** keratinocyte eosinophilic inclusion bodies (Henderson–Paterson bodies)

OTHER DIAGNOSTICS

- **Clinical examination:** dermoscopy; polylobular, amorphous structures with central umbilication, peripheral blood vessels

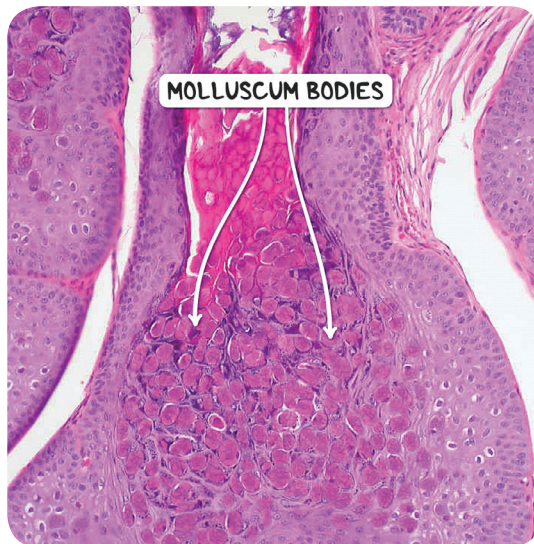


Figure 91.3 A histological section through a molluscum wart at high power. The stratum spinosum and granulosum contain eosinophilic inclusions, known as molluscum bodies.

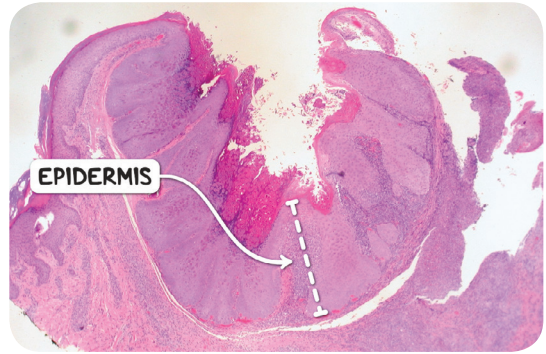


Figure 91.2 A histological section through a molluscum wart at low power. There is marked acanthosis and marked hyperplasia causing inversion.

TREATMENT

- Optional; lesions resolve spontaneously in 6–18 months in immunocompetent individuals

MEDICATIONS

Chemical disruption

- **Topical blistering agent:** cantharidin
- **Antimitotic agent:** podophyllotoxin
- **Topical immunomodulator:** imiquimod
- Potassium hydroxide (KOH)
- **Keratinolytic agent:** salicylic acid

Antiviral treatment

- Cidofovir

SURGERY

Lesion removal

- Cryotherapy, curettage, laser

OTHER INTERVENTIONS

Prevention

- Avoid sharing towels/clothing
- Cover lesions with bandage/clothing
- Barrier contraception (e.g. condoms)